

IN THE CLAIMS

1. (currently amended) An apparatus for magnetic resonance imaging comprising:

a magnet having a gap for receiving a patient;

a patient support positioned within said gap, said patient support being elongated along a first direction and mounted to a frame, said frame mounted to a fulcrum at a location substantially at the midpoint of said elevator frame, said fulcrum operable to rotate said frame about an axis so as to position a patient supported on said patient support~~thereon~~ relative to said gap; and

means for moving said magnet in a substantially vertical direction so that a portion of a region of interest of a patient positioned within said gap can be imaged.

2. (original) The apparatus of claim 1, wherein said magnet further comprises a superconducting solenoidal magnet.

3. (previously presented) The apparatus of claim 1, wherein said magnet further comprises a U-shaped magnet.

4. (original) The apparatus of claim 1, further comprising a patient support positioned within the gap for supporting the patient.

5. (original) The apparatus of claim 1, wherein said means for moving comprises one or more motors that are connected to one or more jacks for lowering or raising said magnet.

6. (original) The apparatus of claim 5, wherein said one or more motors comprise electric motors.

7. (previously presented) The apparatus of claim 5, wherein said one or more motors comprise electromechanical devices capable of moving said magnet.

8. (previously presented) The apparatus of claim 5, wherein said one or more motors comprise pneumatic devices capable of moving said magnet.

9. (currently amended) An apparatus for magnetic resonance imaging comprising:

a magnet having a patient receiving space;

a patient support positioned within said receiving space, the patient support being elongated along a first direction and slidably mounted to an elevator frame, said elevator frame mounted to a carriage at a location substantially at the midpoint of said elevator frame, said patient support operable to slide relative to said elevator frame along said first direction~~having three degrees of motion for positioning so as to position a patient supported on said patient support thereon~~ relative to said receiving space; and

a pair of vertical support members connected to said magnet at opposite ends of said magnet; and

one or more motors coupled to at least one of said vertical support members so as to move said magnet in a substantially vertical direction.

10. (original) The apparatus of claim 9, wherein said magnet comprises a solenoidal magnet.

11. (original) The apparatus of claim 10, wherein said magnet comprises a superconducting solenoidal magnet.

12. (original) The apparatus of claim 9, wherein said magnet comprises a U-shaped magnet.

13. (previously presented) The apparatus of claim 9, wherein said one or more motors comprise at least one electrical device capable of causing said vertical support members to move in a substantially vertical direction.

14. (original) The apparatus of claim 9, wherein said one or more motors comprise at least one electromechanical device capable of imparting the desired motion to said vertical support members.

15. (original) The apparatus of claim 9, wherein said one or more motors comprise at least one pneumatic device capable of imparting the desired motion to said vertical support members.

16. (previously presented) The apparatus of claim 9, wherein said one or more motors comprise at least one hydraulic device capable moving said vertical support members.

17. (currently amended) A method for magnetic resonance imaging comprising:

establishing a static magnetic field between a magnet gap;

positioning a patient in a patient receiving space in the magnet gap on a patient support having three degrees of motion, the patient support being mounted to an elevator frame, said elevator frame mounted to a carriage at a location substantially at the midpoint of said elevator frame, wherein said carriage moves on one or more rails along a horizontal direction;

positioning the static magnetic field by substantially vertically translating the magnet so that the magnet gap envelops a portion of the patient's anatomy; and

supplying a gradient field to the static magnetic field so as to obtain a magnetic resonance image of the patient's anatomy.

18. (original) The method of claim 17, wherein positioning the static magnetic field comprises lowering the magnet so that the magnet gap envelops a portion of the patient's anatomy.

19. (original) The method claim 17, wherein positioning a patient comprises supporting the patient on a patient support and placing the patient support in the patient receiving space.

20. (original) The method of claim 17, wherein positioning the static magnetic field comprises lowering the magnet on a pair of screw jacks operatively coupled to one or more motors.

21. (previously presented) The apparatus of claim 3, wherein said U-shaped magnet comprises a superconducting magnet.

22. (previously presented) The apparatus of claim 12, wherein said U-shaped magnet comprises a superconducting magnet.